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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,613	02/12/2004	Shuji Mayama	118657	3945

25944 7590 09/20/2005

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EXAMINER

NGUYEN, LONG T

ART UNIT	PAPER NUMBER
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2816

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/776,613

Applicant(s)

MAYAMA ET AL.

Examiner

Long Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8 is/are allowed.
- 6) ☒ Claim(s) 16 and 17 is/are rejected.
- 7) ☒ Claim(s) 1-7, 9-15 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/9/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because it is not clear why the drain and source of FET 12 in Figure 1 are connected together. Further, it appears that the arrow for the body of FET 12 in Figures 1 and 4 should be pointed “in” rather than out as currently shown since FET 12 in Figures 1 and 4 is for the source follower circuit (i.e., drain of FET 12 is connected to power supply, and source of FET 12 is connected to a load to provide an output) so FET 12 in Figures 1 and 4 must be an n-channel FET, so the arrow for the body of FET 12 in Figures 1 and 4 must be pointed in.

Also, the drawings are objected to because Figures 2-4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: on line 15 of page 6, “pr determined thresh ol” should be changed to --predetermined threshold--; on line 25 of page 9, “el ctric” should be changed to --electric--; and on line 25 of page 11, “us s” should be changed to --uses--.

Also, the paragraph “the, the current limitation circuit 25 determines ... current flowing in the drive switching element 12” on line 22 of page 12 to line 5 of page 13 is objected to because it is not clear what applicant means “the voltage decline between the drain and the source of the drive switching element 12 exceeds a predetermined threshold value” recited in the above paragraph. Note that it is seen in the drawings that the current control circuit 25 having an input only connected to the source of the FET 12, so it appears that the circuit 25, at most, can only detects the voltage at the source of FET 12.

Clarification and/or appropriate correction is required.

Claim Objections

3. Claims 1-7 and 9-18 are objected to because of the following informalities:

Claim 1, line 10, “a current” should be changed to --a first current--.

Claim 1, line 12, “a current” should be changed to --a first current--.

Claim 1, line 12, “the current” should be changed to --the first current--.

Claim 2, line 10, “a current” should be changed to --a first current--.

Claim 2, line 12, “a current” should be changed to --a first current--.

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Claim 2, line 12, "the current" should be changed to --the first current--.

Claim 3, line 3, "another" should be changed to --a second--.

Claim 3, line 5, "a current" should be changed to --a second current--.

Claim 3, line 6, before "current", --the second-- should be inserted.

Claim 4, line 10, "an overcurrent to" should be changed to --the overcurrent status to--.

Claim 5, line 3, "an overcurrent to" should be changed to --the overcurrent status to--.

Claim 5, line 5, "another" should be changed to --a second--.

Claim 5, line 7, "a current" should be changed to --a second current--.

Claim 3, line 8, "the current" should be changed to --the second current--.

Claim 6, line 3, "an overcurrent to" should be changed to --the overcurrent status to--.

Claim 6, line 5, "another" should be changed to --a second--.

Claim 6, line 7, "a current" should be changed to --a second current--.

Claim 6, line 8, "the current" should be changed to --the second current--.

Claim 7, line 3, "an overcurrent to" should be changed to --the overcurrent status to--.

Claim 7, line 5, "another" should be changed to --a third--.

Claim 7, line 7, "a current" should be changed to --a third current--.

Claim 7, line 8, "the current" should be changed to --the third current--.

Claim 9, line 5, "another" should be changed to --a second--.

Claim 9, line 7, "a current" should be changed to --a second current--.

Claim 9, line 8, "the current" should be changed to --the second current--.

Claim 10, line 5, "another" should be changed to --a second--.

Claim 10, line 7, "a current" should be changed to --a second current--.

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Claim 10, line 8, "the current" should be changed to --the second current--.

Claim 11, line 5, "another" should be changed to --a third--.

Claim 11, line 7, "a current" should be changed to --a third current--.

Claim 11, line 8, "the current" should be changed to --the third current--.

Claim 12, line 7, "a current" should be changed to --another current--.

Claim 12, line 8, "the current" should be changed to --the another current--.

Claim 13, line 5, "another" should be changed to --a third--.

Claim 13, line 7, "a current" should be changed to --a third current--.

Claim 13, line 8, "the current" should be changed to --the third current--.

Claim 14, line 5, "another" should be changed to --a third--.

Claim 14, line 7, "a current" should be changed to --a third current--.

Claim 14, line 8, "the current" should be changed to --the third current--.

Claim 15, line 5, "another" should be changed to --a fourth--.

Claim 15, line 7, "a current" should be changed to --a fourth current--.

Claim 15, line 8, "the current" should be changed to --the fourth current--.

Claim 16, line 13, it appears that "flowing to" should be changed to --flowing in-- (see line 5 of page 13 in the specification).

Claim 17, line 6, it appears that "flowing to" should be changed to --flowing in-- (see line 5 of page 13 in the specification).

Claim 17, line 9, "a current" should be changed to --another current--.

Claim 17, line 10, "the current" should be changed to --the another current--.

Claim 18, line 11, "between at least" should be changed to --between the at least--.

Note that the above corrections are necessary so that the antecedent basis for the limitations of the claims are clear. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 16 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 16, the recitation “a current limitation circuit for causing, when a voltage decline between both ends of the drive switching element exceeds a predetermined threshold value, the both ends of the drive switching element to be short circuited to limit the current flowing to the drive switching element” on lines 10-13 of the claim is indefinite because it is not clear what applicant means by “voltage decline between both ends of the drive switching element”; further, “the both ends of the drive switching element to be shorted circuited” is misdescriptive since the disclosure only recited that the gate and the source to have therebetween a short circuit (not the drain and source); further, “the current” on line 12 of the claim is unclear antecedent basis since it is not known which current that it is referred to. Clarification and/or appropriate correction is requested.

Further, in claim 16, the recitation “the current blocking switching element being provided in at least one of a path between the current limitation circuit and the power source and a path on an output terminal side of the current limitation circuit” on lines 17-19 is indefinite because the disclosure only discloses the current blocking switching element for the current

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limitation circuit is provided in a path between the power supply and the current limitation circuit (see Figure 1, element 33 connected between power source 19 and current control circuit 25), i.e., it is not provided between on a path between the output terminal side of the current limitation circuit as currently recited on lines 18-19 of the claim.

Claim 17 is indefinite for the same reasons as discussed in claim 16 above.

Allowable Subject Matter

6. Claims 1-7, 9-15 and 18 would be allowed if amended to overcome the informalities set forth above. Claim 8 is presently allowed.

Conclusion

7. Because the scope of claims 16 and 17 cannot be determined due to the indefiniteness above, the indication of allowability for these claims is not appropriate at this point.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Long Nguyen whose telephone number is (571) 272-1753. The Examiner can normally be reached on Monday to Thursday from 8:00am to 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan, can be reached at (571) 272-1740. The fax number for this group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Long Nguyen', with a long, sweeping horizontal stroke extending to the right.

LONG NGUYEN
PRIMARY EXAMINER